PETROLEUM WATCH
Transportation Energy Office
Fuels and Transportation Division
California Energy Commission

**April 17, 2012** 

### Summary

As of April 16, retail regular-grade gasoline prices in California fell by 14 cents since the previous *Petroleum Watch* to \$4.24 per gallon, while retail diesel prices fell by 6 cents to \$4.42 per gallon. Although they have declined since March, California retail prices remain at record seasonal highs, but barely so. The decline is due to factors that include decreases in crude oil prices and the completion of planned refinery maintenance. Retail diesel price moves continue to be more moderate than gasoline price changes.

California spot wholesale gasoline prices decreased 16 cents from a month ago to \$3.30 per gallon, a 5 percent fall. Prices also reflected a recovery from the price shock experienced due to a refinery fire in Washington. Wholesale diesel fell 25 cents to \$3.20 in response to crude oil price declines and relatively weak demand.

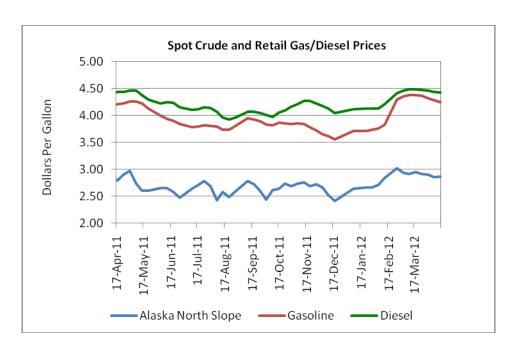
Refinery production of California-compliant gasoline and diesel in California fell by 12.4 percent and 27.6 percent in the past week, respectively. Inventories of California-compliant gasoline and diesel also decreased in the past week, by 7.6 percent and 13.9 percent, respectively. Recently completed refinery maintenance contributed to decreased production and inventories.

A decrease in world crude oil prices contributed to fuel price declines over the past month. Brent oil prices have fallen to \$121.89 per barrel while West Texas Intermediate (WTI) prices have fallen to \$101.12 per barrel. As of April 10, Alaska North Slope (ANS) crude oil prices fell to \$118.77, \$4.04 lower than a month ago.

### Comparisons of Diesel, Gasoline, and Crude Oil Price Changes

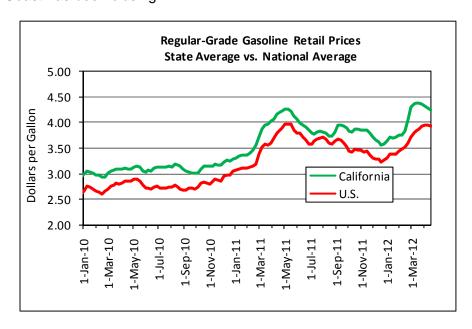
In January and early February 2012, retail gasoline and diesel prices increased relatively slowly. These increases accelerated in late February 2012 before leveling off in March. In early April, prices slowly began to decline. As of April 16, ANS prices reached \$2.87 per gallon, gasoline prices were \$4.24 per gallon, and diesel prices were \$4.42 per gallon.

Gasoline, ANS, and diesel prices are 53 cents, 23 cents, and 31 cents per gallon higher, respectively, compared to January 9, 2012. Rising crude oil prices pushed both gasoline and diesel prices up in March; however, gasoline prices increased more than diesel due to refinery outages and the transition from winter to summer blend gasoline. Crude price declines are starting to be passed through to gasoline and diesel prices. As refineries have returned to operation, retail gasoline prices have declined at a slightly faster rate than diesel prices.

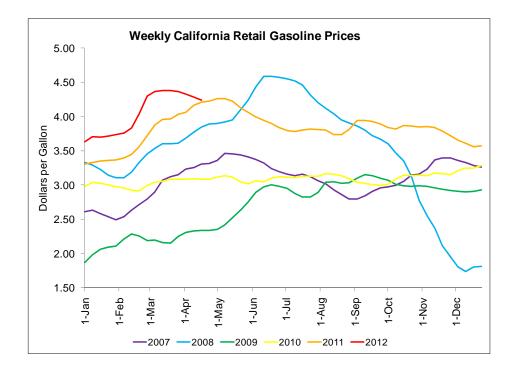


#### Retail Prices

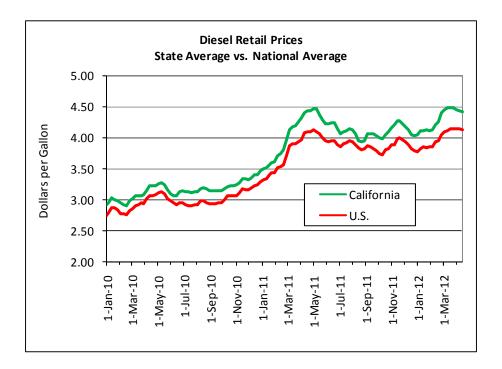
The average California **retail price for regular-grade gasoline** decreased 14 cents over the past month, falling to \$4.24 per gallon, and is only 3 cents higher than this time last year. Nevertheless, average U.S. retail gasoline prices increased 5 cents from a month ago to \$3.92. Average U.S. gasoline prices are 8 cents more than a year ago. The difference between California and U.S. retail gasoline prices decreased to 32 cents, only a penny above the 2009-2011 average of 31 cents per gallon. Retail prices have followed wholesale prices downward since mid-March. California prices decreased while national prices increased because California refineries have completed planned maintenance, while substantial refining capacity on the East Coast has been closing.



After a sharp increase in late February and early March, prices have trended slightly down since mid-March. This downtrend contrasts with both the usual seasonal strength seen at this time of year and the record high prices seen during 2012. Although the next two or three weeks are often seasonally strong, the supply reduction seen following the Cherry Point refinery fire seems to have been at least partially dissipated.



The average California **retail diesel price** fell 6 cents over the past month to \$4.42 per gallon. The average U.S. retail diesel price fell 1 cent over the past month, to \$4.13 per gallon. As a result, the premium for California diesel over U.S. diesel prices decreased 5 cents to 29 cents over the past month. California diesel prices are 2 cents lower than a year ago, and U.S. prices are 2 cents higher. Like gasoline, California retail diesel prices have followed the decline in wholesale spot prices. Diesel prices continue to be less volatile than gasoline prices since the highs of May 2011.

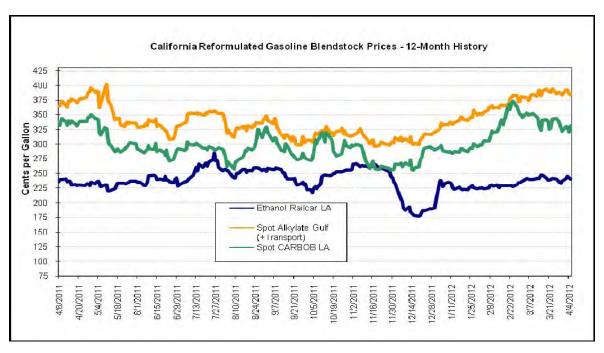


# Wholesale Gasoline and Blendstock Prices on April 10

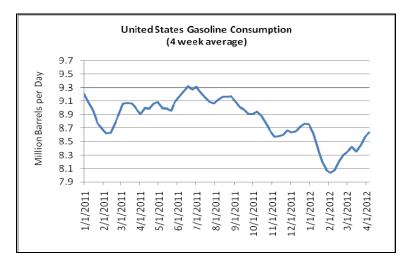
California spot wholesale gasoline prices for regular-grade reformulated blendstock for oxygenate blending (RBOB) fell to \$3.30 per gallon, 16 cents lower than a month ago and a 6 cent decrease over the same time a year ago. Prices in New York however were mostly flat, with less than a penny increase over the past month but with a 13 cent gain over a year ago. California price declines mirror price declines in crude oil over the past month. Upward pressure on New York prices from refinery maintenance in the Northeast counteracted downward pressure from crude oil price declines, leaving New York spot prices relatively flat.

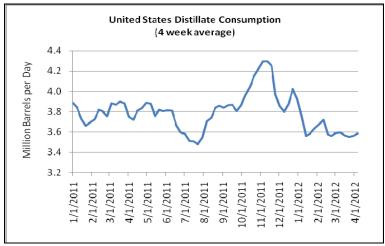
California average spot wholesale ultra-low-sulfur diesel prices stood at \$3.20, a drop of 19 cents in the past week and down 26 cents from a month ago.

The average representative estimated cost of **fuel ethanol** to California refiners and marketers fell 1 cent to \$2.41 per gallon as of April 5, 2012.<sup>2</sup> Wholesale gasoline price declines put downward pressure on prices while corn price increases caused by cold Midwest weather have put upward pressure on prices. Overall, ethanol prices have remained relatively flat over the past five months.



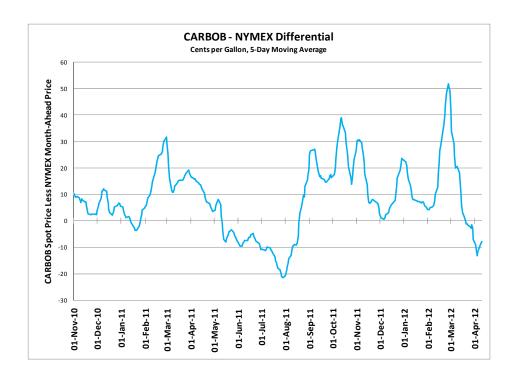
The Energy Information Administration's (EIA) weekly report for the week ending April 6 shows that U.S. gasoline consumption decreased 1.2 percent while distillate consumption rose 9.3 percent from the previous week. The four-week average consumption for gasoline is 8.6 million barrels per day, a decrease of 4.0 percent from the four-week average the same time a year ago. The four-week average for U.S. distillate consumption is 3.6 million barrels per day, 3.6 percent less than the same period a year ago. Although seasonal factors have pushed gasoline demand up, consumption levels remain low in comparison to previous years. Meanwhile, the mild winter in the United States continues to depress heating oil (and hence distillate) demand.





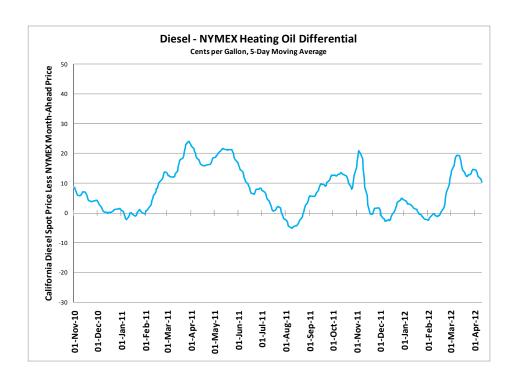
# Futures-Spot Market Spread<sup>3</sup>

As of April 10, the spot market price for California gasoline showed a 7 cent discount to the NYMEX one-month-ahead futures price, using five-day moving averages. This is a remarkable decline from the 52 cents per gallon premium of February 27. Since the March *Petroleum Watch* this premium rapidly diminished as refineries completed maintenance and NYMEX prices have increased due to the transition from winter to summer blend in the Northeast. The recent volatility has increased, with the past six weeks seeing the greatest changes in the spread since the December 2005 to May 2006 period.



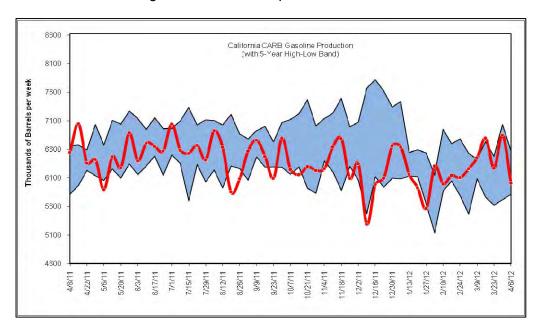
California diesel sells at a premium of 10 cents to the NYMEX heating oil one-month ahead futures price, 8 cents below the level seen in the March *Petroleum Watch*, and slightly above the two-year average premium of 8 cents. For almost two months California diesel prices and NYMEX one-month-ahead prices have maintained a 10 to 20 cent differential while their daily price movements have been in similar directions.

The premium for California diesel declined in response to the same factors seen in the gasoline market, although to a much more moderate degree. The Ceridian-UCLA Pulse of Commerce Index indicates that trucking activity has been weak throughout the United States with a correspondingly low demand for diesel, although the West Coast has been slightly stronger than the national average.

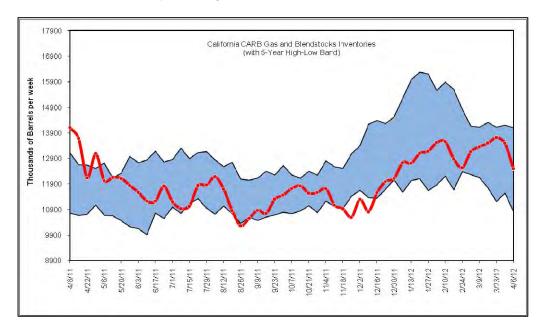


## Refinery Production and Inventories

**Reformulated gasoline production** in California for the week ending April 6 decreased 12.4 percent from the previous week to 6 million barrels, falling to the bottom of the five-year range. Some California refineries have been undergoing planned maintenance, which has contributed to decreases in reformulated gasoline and diesel production. <sup>4</sup>

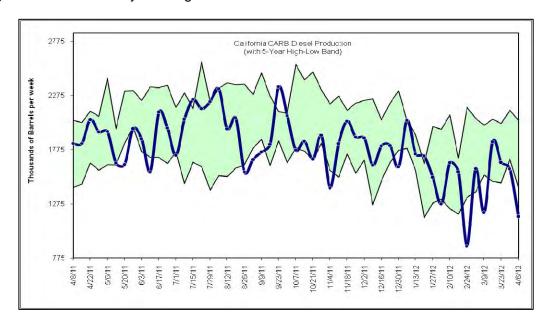


California **reformulated gasoline inventories** decreased 7.6 percent from the past week, while gasoline blendstock inventories decreased 7.1 percent. California's combined inventories of reformulated gasoline and gasoline blendstocks decreased 7.3 percent to 12.5 million barrels, falling to the middle of the five-year range.

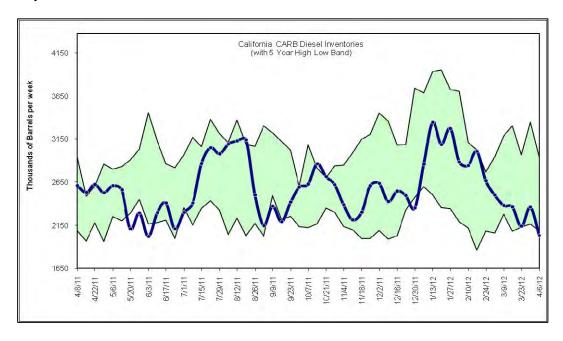


For the United States, gasoline inventories as of April 6 decreased to 217.6 million barrels, 4.3 million barrels less than the previous week. Inventories increased by 178,000 barrels on the West Coast, but decreased by 1.9 million barrels on the East Coast, and by 1.3 million barrels on the Gulf Coast.

California-compliant **ultra-low-sulfur diesel fuel (CARB diesel) production**<sup>5</sup> was 1.2 million barrels during the week ending on April 6, a decrease of 27.6 percent from the previous week, falling well below the five-year range.



**Inventories of CARB diesel** in California decreased 4.8 percent from the previous week to 2.4 million barrels, falling slightly below the bottom of the five-year range, and to the lowest level since early June 2011.



U.S. distillate inventories as of April 6 fell to 131.9 million barrels, 4 million barrels less than the previous week. Inventories decreased by 1.4 million barrels on the East Coast, 1.6 million barrels on the Gulf Coast, and 383,000 barrels on the West Coast.

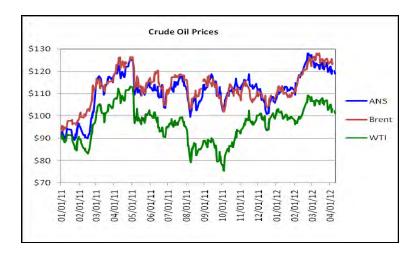
Crude Oil Prices and Associated Factors

West Coast prices for ANS crude oil, a refinery feedstock for California, fell to \$118.77 as of April 10. Prices have fallen \$4.04 since the previous *Petroleum Watch* and are \$1.65 lower than a year ago. ANS crude oil price changes are influenced by inventory levels, refinery capacity, domestic and international economic conditions, currency exchange rates, perceived risks to global supply such as unrest in the Middle East, and near-term price trends as indicated by the futures market for crude oil. Iran has agreed to resume negotiations with regard to its nuclear program, easing geopolitical tensions. Renewed concerns about European debt, a March jobs report showing fewer jobs created than expected, and increased inventories have also pushed prices down.

### **Recent Trends in Crude Oil Prices**

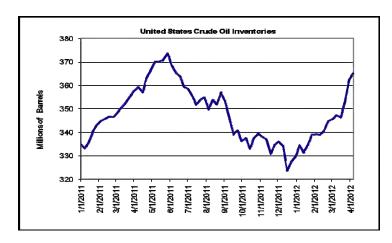
	March 2012	April 2012	Change from previous Month	Directional Contributing Factor		
				Upward	Downward	Unchanged
ANS Crude Oil Price (U.S. Dollars/Barrel)	\$122.81	\$118.77	Down 3.3%			
Europe Brent Crude Oil Price (U.S. Dollars/Barrel)	\$128.14	\$121.89	Down 4.9%			
West Texas Intermediate, Cushing Oil Price (U.S. Dollars/Barrel)	\$106.70	\$101.12	Down 5.2%			
U.S. Crude Oil Inventories (MM Barrels)	347.5	365.2	Up 5.1 %		No. of the last of	
S&P 500	1,396	1,359	Down 2.7%			
EURO STOXX 50 Price	2,527	2,371	Down 6.2%			
Total Dollar Index	80.2	79.8	Down 0.4%			<b>✓</b>
Exchange Rate: Dollars per Euro	1.31	1.31	unchanged			
European Debt Problems						
Disruption in Oil Exports						1

The spread between West Texas Intermediate crude oil prices and the Brent crude oil contracts remains wide, averaging \$19.42 since the last *Petroleum Watch*. West Texas Intermediate-NYMEX futures traded at \$101.12 per barrel as of April 10, \$17.65 less than ANS crude oil. Brent prices remain slightly elevated above ANS prices in response a relatively strong dollar relative to the Euro.



A major reason for the divergence between Brent and WTI crude oil prices earlier this year was the increased production of shale oil from the Bakken formation in North Dakota. A combination of increased rail transportation<sup>7</sup>, barge shipments, and planned pipeline reversals has eased transportation problems. Nevertheless, North Dakota oil production is increasing more quickly than oil transportation infrastructure in that region, which has again led to increased inventories and lower WTI prices relative to Brent.

U.S. crude oil inventories have increased over the past week. As of April 6, U.S. commercial crude oil inventories rose by 2.8 million barrels from the previous week to 365.2 million barrels. Crude oil stocks are 5.9 million barrels more than a year ago and 20.4 million barrels more than the five-year average for this date. California crude oil stocks rose 1.8 percent from the previous week to 15.2 million barrels but are 4.4 percent less than a year ago.



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<sup>&</sup>lt;sup>1</sup> Retail gasoline and diesel prices and U.S. crude oil and product inventory estimates are from the Energy Information Administration of the U.S. Department of Energy.

<sup>&</sup>lt;sup>2</sup> Ethanol railcar prices are from *Platts Oilgram* and are average prices for prompt Southern California shipments minus a 45¢/gal federal excise tax credit for 2009 through 2011 prices and a 51¢/gal federal excise tax credit for prices prior to 2009. The federal excise tax credit expired at the end of 2011. California alkylate prices are also calculated from Platts Oilgram and include a 20¢/gal transportation and distribution cost from Gulf Coast to California. Spot wholesale prices for regular-grade California reformulated gasoline blendstock for oxygenate blending (CARBOB) are from Oil Price Information Service.

<sup>&</sup>lt;sup>3</sup> A higher spread between the state's spot fuel prices and the New York Mercantile Exchange (NYMEX) futures price indicates supplies are tighter in California, and a lower spread indicates the market is relatively well-supplied compared to the rest of the country. The NYMEX futures price reflects the national market, while California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) is a gasoline blend unique to California and is usually sold at a premium to the NYMEX price.

<sup>&</sup>lt;sup>4</sup> California refinery production and inventory information is from the Petroleum Industry Information Reporting Act (PIIRA) database maintained by the California Energy Commission.

<sup>&</sup>lt;sup>5</sup> Staff has discontinued the reporting of combined CARB and EPA diesel production and inventories and will report only CARB diesel as of December 2009. EPA diesel is primarily for export from California.

<sup>&</sup>lt;sup>6</sup> Alaska North Slope (ANS) crude oil prices are from *The Wall Street Journal*. Brent and West Texas Intermediate (WTI) crude oil prices are from the Energy Information Administration.

<sup>&</sup>lt;sup>7</sup> Oil Rail transportation estimates are obtained from the Energy Information Administration of the U.S. Department of Energy and the American Association of Railroads